

AMENDMENTS TO THE CLAIMS

Claims 1-11 (Canceled)

12. (Currently amended) A method of identifying an agent capable of modulating a ~~neuromuscular phenotype~~ increased coordination or increased agility associated with disruption of NPY6 receptor, the method comprising:

- (a) providing a transgenic mouse comprising a homozygous disruption in a NPY6 receptor gene, wherein the transgenic mouse exhibits, relative to a wild-type mouse, increased coordination or increased agility a ~~neuromuscular phenotype~~;
- (b) administering a putative agent to the transgenic mouse; and
- (c) determining whether the increased coordination or increased agility ~~neuromuscular phenotype~~ is modulated by the putative agent, thereby identifying an agent capable of modulating increased coordination or increased agility the ~~neuromuscular phenotype~~.

Claims 13-20 (Canceled)

21. (Currently amended) A transgenic mouse comprising a disruption in an endogenous NPY6 gene that results in loss of function of NPY6, wherein where the disruption is homozygous, the transgenic mouse exhibits, relative to a wild-type mouse, increased coordination or increased agility a ~~neuromuscular phenotype~~.

22. (Canceled)

23. (Currently amended) The transgenic mouse of claim 21 ~~claim 22~~, wherein the increased coordination or increased agility is characterized by an increased latency to fall off of an accelerating rotarod.

24. (Canceled)

25. (Currently amended) A method of producing a transgenic mouse comprising a disruption in an endogenous NPY6 gene, the method comprising:

- (a) introducing an NPY6 gene targeting vector into a murine embryonic stem cell;
- (b) introducing the cell into a blastocyst;
- (c) implanting the resulting blastocyst into a pseudopregnant mouse, wherein said pseudopregnant mouse gives birth to a chimeric mouse; and
- (d) breeding the chimeric mouse to produce the transgenic mouse,

wherein the disruption results in loss of function of NPY6 and, where the disruption is homozygous, the mouse exhibits, relative to a wild-type mouse, increased coordination or increased agility ~~a neuromuscular phenotype~~.

Claims 26-30 (Canceled)